

LOW NOISE FAST STABLE VOLTAGE REGULATOR CIRCUIT

Abstract

A low noise voltage regulator circuit with fast stable output voltage is disclosed. The low noise voltage regulator circuit contains a reference voltage generator, for generating a reference voltage; a switching circuit, which is electrically coupled to the output of reference voltage generator and has two states; and a stabilizing circuit. When the switching circuit is at a first state, the reference voltage is coupled to the stabilizing circuit without being filtered; when the switching circuit is at a second state, the reference voltage is filtered by a low pass filter before being coupled to the stabilizing circuit. A switching control signal is used to switch the switching circuit between the two states. The filtered reference voltage is used to generate a low noise regulated output voltage.